

AMENDMENTS TO THE SPECIFICATION

IN THE SPECIFICATION:

1. Please amend the paragraph extending from line 6 to line 10, including equation (1), on page 25 as follows:

When the length of the PCB is I_0 before the thermo-compression bonding process and the length of the PCB is I after the thermo-compression bonding process, the thermal expansion amount per unit length is generally expressed as the following equation (1)

$$\frac{I - I_0}{I} = \alpha \Delta t \text{ ----- (1)}$$

2. Please amend the paragraph extending from line 10 to line 15 on page 26 as follows:

As shown in Table 3, the average value of each thermal expansion amount of each TCP is about $37.3\mu\text{m}$ (the standard deviation is 2) when the shrinkage printed circuit board 100 is thermo-compressed. Also, as shown in Table 5, the average value of each thermal expansion amount of each TCP is about $42.17\mu\text{m}$ (the standard deviation is 0.988) when the conventional printed circuit board is thermo-compressed ~~as shown in Table 7~~.

3. Please amend the paragraph extending from line 12 on page 28 to line 9 on page 29, including equation (2), as follows:

When the pre-compression process is performed concerning the first TCP 200a and the first PCB land 120a, the left end of the first PCB land 120a moves toward a first dotted line 420 due to the thermal expansion of the substrate 100 and the left portion of the first TCP 200a also moves toward the second dotted line 520 for the same reason. Hence, after the thermo-compression bonding process, the first TCP 200a is expanded by an interval (V_1) between the second real line 510 and the second dotted line 520. Also, the first PCB land 120a expands by an interval (P_1) between the first real line 410 and the first dotted line 420. Then, the measured misalignment value becomes the interval (A_1) from the second dotted line 520 to the first dotted line 420. Therefore, the magnitude of the misalignment (A_1) measured at the left portion of the first TCP 200a is expressed according to the following equation (2):

$$A_1 = -P_1 - (-\underline{a}V_1) \text{ ----- (2)}$$

4. Please amend the paragraph extending from line 6 in page 30 to line 4 in page 31 as follows:

When the pre-compression process is performed concerning the eighth TCP 200h and the eighth PCB land 120h, the left end of the eighth PCB land 120h moves toward the first dotted line 620 due to the thermal expansion of the substrate 100 and the left portion of the eighth TCP 200h also moves toward the second dotted line 720 due to the thermal expansion of the substrate 100. Hence, after the thermo-compression bonding process, the eighth TCP 200h is expanded by an interval ($\alpha \cdot \Delta T$) between the second real line 710 and the second dotted line 720. The eighth PCB land 120h also expands by an interval (P_8) between the first real line 610 and the first dotted line 620. Also, the measured misalignment value becomes the interval (A_8) from the second dotted line 720 to the first dotted line 620. Therefore, the magnitude of the misalignment (A_8) measured at the left portion of the eighth TCP 200h is expressed according to the following equation (3):

$$A_8 = P_8 - (\alpha \cdot \Delta T) \text{ ----- (3)}$$